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EXPLORING THE COGNITIVE IMAGE OF A TOURISM DESTINATION

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This paper explores and evaluates the structure of the cognitive component of tourism destination image. The empirical study is operationalized in a sun-and-sand tourism destination of a Greek region. Given the reported multidimensionality of the construct, and the critic on the psychometric properties of previously defined scales measuring tourism destination image, this study examines the applicability of a new scale and provides empirical evidence to propose an alternative component structure for the formation of cognitive tourism destination image. Our analysis suggests four image dimensions: (1) must-be conditions (2) attractive conditions, (3) appealing activities, and (4) natural environment. Implications are discussed.

Keywords: *Tourism destination, Cognitive image, dimensions*

JEL Classification: L83, M1, O1

INTRODUCTION

Within the tourism marketing literature, recognizing attributes and attitudes associated with a specific destination by visitors is crucial (Baloglu & Love, 2005; Pike, 2002). In this context, researchers have operationalized the destination image concept, which has generally been utilized as an attitudinal construct (i.e. Gallarza, Gil, & Calderon, 2002; Beerli & Martın, 2004).

The premise then for advancing the study of destination image is that it contributes in understanding tourist behavior (Mansfeld, 1992; O'Leary & Deegan, 2003). For example, among others the construct's importance has been suggested in explaining tourists' preferences and visitation patterns (Mayo, 1973; Milman and Pizam, 1995), destination selection process (Chon, 1992; Echtner & Ritchie, 1991; Gunn 1972; Hunt 1975; Oppermann

1996; Stabler, 1988), and destination positioning (Crompton, Fakeye and Lue 1992; Echtner and Ritchie 1991; Eizaguirre and Laka 1996).

Destination image research, despite the wide empirical validation in various studies, is loosely defined (Mazanec and Schweiger 1981), lacking a conceptual framework (Fakeye and Crompton 1991; Gartner 1994). Although more research work on destination image has provided more solid conceptual structures (i.e. Beerli and Martin, 2004; Pike and Ryan, 2004; Baloglu and McCleary, 1999; Chen and Kerstetter, 1999), still there are alternative views both on the definition of this image and its components (Gartner, 1989; Grosspietsch, 2006).

Regarding the multidimensionality issue, several studies centered on the cognitive component of image (i.e. Chaudhary, 2000; Echtner & Ritchie, 1993; Fakeye & Crompton, 1991; Grosspietsch, 2006) while other studies, more recent, have also considered the affective component (i.e. Beerli and Martin, 2004; Hong et al., 2006; Ryan and Cave, 2005; Sirakaya, Sonmez, and Choi, 2001; Son and Pearce, 2005). Further to the heterogeneity in components operationalized within cognitive image studies (Leisen, 2001), there is also no consensus in the dimensions comprising the cognitive image of a destination (Lee et al., 2005).

This paper aims to provide an in-depth examination of factors affecting image formation. Specifically, we concentrate on one of the components of the destination image, namely, the cognitive component by analyzing its composition. To address this objective, we carry out an empirical study in a sun-and-sand tourism destination in a tourist region of Greece. Regarding the attributes of the cognitive component of image, we explore and evaluate the applicability of previously defined scales of tourism destination image. In this way, the present study adds to the existing knowledge by providing empirical evidence for the structural pattern of elements contributing to the formation of destination image.

STUDY BACKGROUND

Previous research suggests that tourism destination image is a multidimensional construct (i.e. Baloglu and Brinberg, 1997; Echtner and Ritchie,1993; Dann, 1996; Driscoll, Lawson and Niven, 1994; MacKay and Fesenmaier, 1997; Walmsley and Jenkins, 1993). However, a variety of alternative dimensional patterns reflecting destination image have also been reported (Leisen, 2001).

For example, Gartner (1994) suggested that the overall tourism destination image comprises three elements, namely, the cognitive,

affective, and the conative. In this respect, many studies conceptualized destination image as a construct comprising two interrelated components: the cognitive component reflecting evaluations of the perceived attributes of the destination, and the affective component echoing tourists' feelings towards the destination (i.e. Baloglu and Brinberg, 1997; Baloglu and McCleary, 1999; Chen, 2001; Gartner, 1994; Hong et al., 2006; Walmsley and Young, 1998).

There is a consensus among researchers implying that both components contribute to the development of overall tourism destination image (i.e. Fakeye & Crompton, 1991; Phelps, 1986). Further to this, more recent work (i.e. Baloglu & Love, 2005) proposed the examination of overall image alone as the third component of the image next to the cognitive and affective components.

Most of previous research investigated the cognitive component of image (i.e. Baloglu and McCleary, 1999; Chaudhary, 2000; Chon, Weaver and Kim, 1991; Echtner and Ritchie, 1993; Fakeye and Crompton, 1991; Gartner 1989; Gartner and Hunt, 1987; Gartner and Shen, 1992; Goodrich, 1978; Grosspietsch, 2006; Hu and Ritchie, 1993; Hunt, 1975; Phelps, 1986; Walmsley and Jenkins, 1993). Researchers utilized alternative scales comprising different attributes in an effort to establish valid measures of destination image. Lee et al. (2005) criticized the lack of homogeneity of the attributes utilized in examining the cognitive destination image as idiosyncratically defined according to corresponding study contexts. Similarly, Gallarza, Gil, & Calderon (2002) questioned the psychometric properties of the majority of scales that measured the cognitive image.

Echtner and Ritchie (2003) in reviewing previous studies on cognitive destination image, concluded that the common attribute-based synthesis of the construct comprises 34 cross-referenced attributes altogether. In one of the first approaches involving a multi-item expression of cognitive destination image, Hunt (1975) suggested the use of a 20-item-attribute scale, based on tourism experts' opinions and measured on a 5 and 7-point semantic differential scales. Hu and Ritchie (1993) proposed a 16-item-attribute scale using a 5-point semantic differential measuring scale. Main goal of the latter study was to evaluate the relative importance of each touristic attribute contributing to the attractiveness of a travel destination. Milman and Pizam (1995) used a 14-item cognitive image scale aiming at evaluation of a series of statements pertaining to overall perception of a tourist destination. In this case a 5-point Likert scale was employed, ranging from "1 = strongly disagree" to "5 = strongly agree". In the published research of Baloglu and Mangaloglu (2001), destination images were examined in order to rate four countries as summer vacation

destinations, emphasizing the importance of travel intermediaries' images. The measurement of this comparative research study has many similar items scale-wise with that of Milman and Pizam (1995). In the study of Pike and Ryan (2004), respondents were asked to indicate perceived performance for each one of five leading domestic holiday areas of New Zealand, using a 20-item-attribute cognitive scale with a 7-point measurement scale anchored with "1=not important" and "7=very important". Finally, Beerli and Martin (2004) suggested a 29-item-attribute scale, using a 7-point Likert scale anchored by "1=totally disagree and 7=totally agree". Each one of testing attributes reflects a different aspect of tourists' perceived image from the destination.

RESEARCH DESIGN AND METHODOLOGY

Instrument Development

The measurement scale of cognitive destination image was developed according to recommended research procedure shown on Table 1 (Huang, 2009). These methodological steps were taken in order to enhance the content validity and reliability of measurements. A comprehensive literature review was first conducted to generate an initial list of measurement items (Beerli and Martin, 2004; Pike and Ryan, 2004; Baloglu and McCleary, 1999; Echtner and Ritchie, 2003; Chen and Kerstetter, 1999). Three additional items were added to the 25-item scale resulted from literature review, after Critical Incident Technique (CIT) (Chell, 1998; Woolsey, 1986) was employed based on a sample of 64 undergraduate business administration students. The list of measurement items was formed both in greek and English. Participation of students to CIT implementation depended on whether they were actively involved in the past in deciding a tourism destination for their vacations. Other than that, students were approached by getting into classes, selected in a random order, and asking permission from instructors to run CIT before classes start. CIT returned 64 filled-out self-administered questionnaires in greek language, underlining the most positive, as well as the most negative experiences students could recall from a tourism destination they has visited in the past. The list of measurement items derived from both literature review and implementation of CIT was then submitted to a team of experts comprised of 5 tourism researchers and industry professionals. Field experts checked the measurement items that had been previously translated in English. The panel judged the applicability and validity of the

measurement items to current study, applying three round reviews of Delphi method (Clayton, 1997). The list of items remained the same but many items were rephrased, based on the expert panel's opinions.

According to this list a draft questionnaire was designed for a pilot study, including demographic items, too. The resulted questionnaire was pre-tested with foreign tourists approached at International Airport of Thessaloniki, Greece (SKG) on June 8, 2013, during their wait to depart for their countries of permanent residence after spending vacations in Greece. Some of them were asked to fill out the questionnaire while waiting for check-in, while others entering the transit area of the airport and after passport, hand-luggage check. Pilot study revealed that answering the questionnaire at check-in departing areas was a difficult task for the tourists due to lack of space and time, resulting in unfinished questionnaires. However, survey was particularly successful in the transit area, where tourists found it much more convenient to provide their opinions. A few corrections in items' expression were also indicated by pilot-study participants. After taking care of the issues raised during pilot study, the questionnaire was re-examined by the same team of experts, who were all agreed that the final version of it was suitable for conducting the main survey.

Table 1. Research Procedure for the current study (Huang, 2009)

Research stage	Research action
Literature Review	Research on cognitive image measurement scale items
Elicitation Study	• Implementation of Critical Incident Technique (CIT) using a sample of 64 undergraduate students who had vacations in Greece at least once in the past without parental guidance • Confirmation of measurement items by 5 field experts (Delphi method)
Initial Questionnaire Development	Results from literature review and elicitation study
Pilot Study	Questionnaire was tested on 85 tourists departing from International Airport of Thessaloniki, Greece to their home countries (June 8, 2013)
Final Questionnaire Development	Results of experts' opinions and pilot study
Data Collection	Mall interception technique, 325 usable self-administered questionnaires (International Airport of Thessaloniki, Greece / June 26-30, 2013)
Data Analysis	Missing Values Analysis (MVA) using SPSS Exploratory Factor Analysis using Principal Component Analysis (PCA)

Sample design and data collection characteristics

As Hair et al. (2010) suggest that absolute sample size must have more observations than variables, in case of collecting data for factor analysis performance. Moreover, researchers should make sure they have gathered a minimum of 50 and ideally 5 observations per variable. Therefore, in our case a sample size of 280 observations is considered adequate (5×28×2=280). Main survey took place at SKG during June 26-30, 2013 using mall interception technique. During those 5 research days a total of 522 tourists were approached and 342 accepted to respond to the questionnaire. Finally, the survey procedure returned 325 usable questionnaires, with a mean daily yield of 65 full responses.

Table 2 summarizes the survey profile of 325 tourists, with 48.2% of them being men and 51.8% women. The vast majority of survey participants were returning to three countries: Russian Federation (46.1%), Germany (35.5%) and U.K. (13.2%), featuring anyway as three of the top tourist markets of Greece (SETE, 2012). More than 33% of them are youngsters and at the same time large portions of visitors are in their 30's or 40's (20% to 25%). As far as the annual household income is concerned, it should be noticed that 23.5% of the visitors in Greece live at their home country with less than 10,000 € at an annual base, the majority of whom are people coming from Russia and students from all tourist markets. At the upper extreme, there is a 17.1% of tourists making more than 100,000 € annually, but the fact is that some 56% of the survey participants have an aggregate annual household income of less than 50,000 €. Additionally, the educational level of 65.1% of those tourists is college studies or more, and only 5.4% of them have not gone to High school. Most of respondents work in the private sector as employees (52.5%) or they run their own business (12.9%), with students being another important segment. In conclusion, there is a clear predominance of individuals aged between 30 and 49 years (45.6%), with college education, working as full-time employees and living with less than 10,000 € per year.

Measurement and data analysis

According to Fishbein and Ajzen (1975) cognitive beliefs are clearly distinguished from attitudes. Triandis (1977, 1980) suggested that cognitive belief of an individual is a function of perceived consequences (i.e. perceptions) and the individual evaluation of these consequences (i.e. attributed importance). Thus, cognitive destination image of cognitive item *i* is calculated through equation 1:

Table 2. Survey participant profile

Gender	Male: 48.2% Female: 51.8%
Country of Residence	Russia: 46.1% Germany: 35.5% UK: 13.2% Other: 5.2%
Age	< 19: 10.0% 20-29: 23.1% 30-39: 20.4% 40-49: 25.2% 50-59: 14.9% > 60: 6.4%
Annual Household income (€)	< 10,000: 23.5% 10 k – 30 k: 17.8% 30 k – 50 k: 14.7% 50 k – 70 k: 12.6% 70 k – 100 k: 14.3% > 100 k: 17.1%
Highest Level of Education	<High School: 5.4% High School: 15.6% Post-Secondary: 6.2% College, no grad.: 9.8% College, compl.: 38.1% Tech. Training: 7.7% Post-graduate: 17.2%
Employment Status	*FLB: 12.9% **FTE:52.5% †PTE: 10.9% Household: 2.3% Student: 16.0% Pensioner: 4.0% Other: 1.4%

Note: *FLB = Free-Lance professional / Businessman, **FTE = Full-Time Employee, †PTE = Part -Time Employee

$$CI_i = Pc_i \times Vc_i \quad (1)$$

where,

CI_i = cognitive destination image of item *i*,

Pc_i = perceived consequence of item *i*,

Vc_i = evaluated importance of item *i*.

Final questionnaire is comprised by 3 main sections: a) control questions, b) cognitive destination image questions measuring with the same 28-item scale both perceptions (Pc_i) and value or importance (Vc_i) attributed by respondents to each cognitive item, and c) demographics. Cognitive image was measured based on its two components by asking respondents to provide feedback on: 1) "My visit to Greece has included or it can offer….", and 2) "I evaluate the following attributes, for the case of Greece, as follows….". Table 3 presents the list of cognitive attributes that were included in the self-administered questionnaire.

All items related to cognitive image have been measured on a 7-point Likert scale ranging from "1=totally disagree" to "7=totally agree" for capturing perceptions and from "1=totally unimportant" to "7=totally important" for evaluating importance. This type of measurement scale has been widely applied in tourism destinations marketing studies (Alcañiz et al., 2009; Lam and Hsu, 2006; Baloglu and Mangaloglu, 2001; Beerli and Martin, 2004; Chen and Tsai, 2007). Moreover, respondents were given the choice to reply "I cannot answer", if this was their true will, in order to avoid false neutral evaluations (Shoemaker et al., 2002).

Data were processed with SPSS statistical package according to the step-by-step procedure of Table 4. Missing data analysis took place using Expectation-Maximization (EM) technique, since missing data accounted for > 5% of the sample (Walker et al., 2013). Then, we proceeded in repetitive implementation of EFA using Principal Component Analysis (PCA) to summarize most of variance in a minimum number of factors for prediction purposes (Hair et al., 2010). Reliability or internal consistency was measured twice: firstly, before EFA implementation on the 28-item *CI* scale, and secondly after pruning 5 items, on the resulting 23-item *CI* scale. Pruning of those items was decided based on two criteria, i.e. communalities and factor loadings, in order to minimize "noise" and increase scale validity (Hair et al., 2010). Table 5 illustrates the quantitative criteria that were put in use for scale evaluations. Finally, the number of factor extracted was cross-checked with applying parallel analysis (PA). This Monte Carlo simulation process provides the researcher with eigenvalues from randomly generated correlation matrices, which can then be compared with those extracted from researcher's dataset (Patil et al., 2007). According to Horn (1965), the number of factors to retain will be the number of eigenvalues (generated from the dataset) having larger values than the corresponding random eigenvalues.

Table 3. Items of the cognitive image in questionnaire

Cognitive destination image	
• (C1) Good climate	• (C16) Safe place to travel
• (C2) Great beaches	• (C17) Easily accessible from permanent residence
• (C3) Beautiful landscape	• (C18) Family-oriented destination
• (C4) Great variety of plants and animals	• (C19) Standard hygiene and cleanliness
• (C5) Good quality of infrastructure	• (C20) Friendly and hospitable local people
• (C6) Availability of hotels/ lodgings/ camping	• (C21) Good value for money
• (C7) Convenient to get tourism information	• (C22) Political stability
• (C8) Various shopping opportunities	• (C23) Good reputation
• (C9) Exciting night life and entertainment (e.g. nice bars, restaurants, shows, casinos etc.)	• (C24) Unpolluted / unspoiled natural environment
• (C10) Relaxing /avoidance of daily routine	• (C25) Implementation of policies towards sustainability & environmental protection
• (C11) Interesting cultural attractions	• (C26) Strikes and Social unrests
• (C12) Interesting historical monuments & relevant events	• (C27) Satisfactory customer care on behalf of various professionals (e.g. waiters, hotel managers, tour guides)
• (C13) Good facilities for sports training	• (C28) Nice opportunities for wine-tourism
• (C14) Nice opportunities for biking / fishing / hunting / climbing	
• (C15) Appealing local food (cuisine)	

Table 4. Major steps in data analysis

Steps	**Purpose**
Data Handling	• Data coding • Handling missing data with Expectation-Maximization Technique (EM) using SPSS
Descriptive Analysis	• Characteristics of sample • Overall data quality / Sample Adequacy

Repetitive procedure of factor analysis	• Principal component analysis using SPSS • Pruning observed variables (items) with low factor loadings and /or low communalities • Parallel Analysis • Construct reliability and validity of measures
Factor Model Specification	• Final components of cognitive destination image

Table 5. Criteria for reliability and validity of multiple-item scales

Coefficients	Criteria
Cronbach's alpha (Internal Consistency)	≥ 0.70 (George, 2003) ≥ 0.60 (Robinson et al., 1991)
Factor Loadings (Convergent Validity)	≥ 0.50 and ideally, ≥ 0,71 (Hair et al., 2010) ≥ 0.50 (Gursoy & Gavcar, 2003)

RESULTS

The 28 items of the proposed cognitive image scale were subjected to principal component analysis (PCA) using SPSS. Prior to performing PCA, reliability and suitability of data for factor analysis was assessed. Initially, scale reliability was assessed with internal consistency (Cronbach's alpha α), and the results are presented on Table 6. Taking into account the criterion for internal consistency shown in Table 5, we conclude that the 28-item scale is a reliable one. Inspection of the correlation matrix revealed the presence of many coefficients of .30 and above. The Keiser-Meyer-Olkin (KMO) value was initially calculated at .934 for the 28-item scale (Table 7), exceeding the recommended value of .60 (Kaiser 1970, 1974. Moreover, Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, supporting the factorability of the correlation matrix.

Principal components analysis was initially implemented, with Promax rotation, revealed the presence of five components with eigenvalues exceeding 1, explaining 37.85%, 7.16%, 6.54%, 4.81% and 3.92% of the variance, respectively. An inspection of the screeplot revealed a clear break after the fourth component. Using Catell's (1966) scree test, it was decided

to retain four components for further investigation (Figure 1). This was further supported by the results of Parallel Analysis (PA), which showed only four components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (28 variables × 325 respondents). Therefore, we proceeded with the implementation of a new PCA, applying an a priori criterion for four components to be extracted. A detailed check of communalities, as well as of cross-loadings in the Pattern matrix leads to taking out of the scale five variables in consecutive steps: CI4, CI7, CI9, CI20 and CI26. At this point, the final stage of EFA has been reached. First, reliability of the 23-item cognitive image scale has to be determined.

Table 6. Scale reliability of cognitive destination image

Scale Reliability	28-item scale	23-item scale
Internal Consistency - Cronbach's alpha	.926	.928

Table 7. Suitability of data for factor analysis

Measures	Values (28-item scale)	Values (23-item scale)
Kaiser-Meyer-Olkin for Sampling Adequacy	.934	.933
Bartlett's Test of Sphericity Approx. χ^2	22597.585	11594.308
df	378	253
Sig.	.000	.000

As Table 6 shows, evaluation of Cronbach's alpha has been increased (.928 > .70) and the new 23-item scale can be assumed reliable (George, 2003). Then, Keiser-Meyer-Olkin (KMO) value was initially calculated at .933 for the 23-item scale (Table 7), satisfying the relevant criterion (.933>.70). Moreover, Bartlett's Test of Sphericity (Bartlett, 1954) reached again statistical significance.

Principal component analysis took place with Promax rotation, because it was previously found that Varimax or no-rotation did not result in a clear factorial structure. Table 8 shows strong correlations among four components extracted (e.g. -.669, -.640, .532), which means that an oblique rotation like promax, and not an orthogonal one, would be most appropriate (Hair et al., 2010) (Table 9).

Figure 1. Scree plot for the 28-item cognitive scale

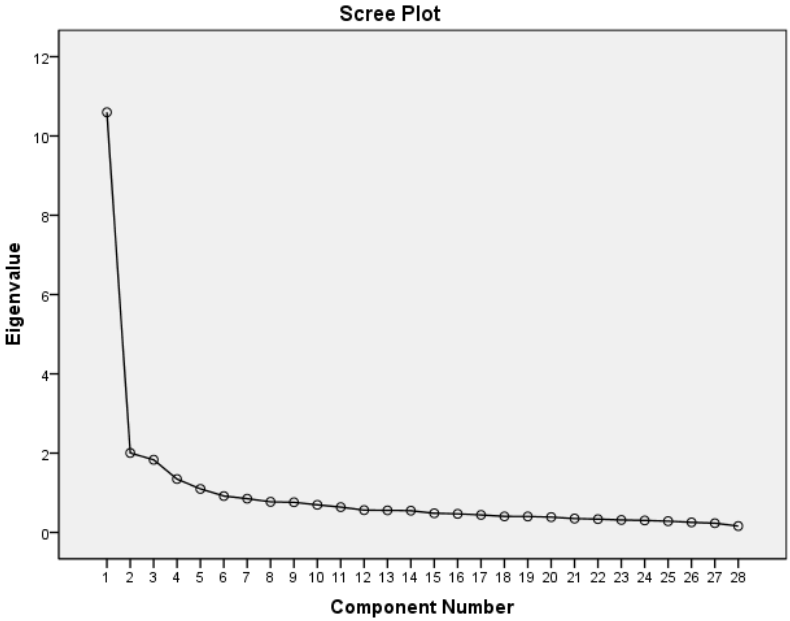

Table 8. Correlations of cognitive image components from initial extraction (Varimax Transformation Matrix)

Component	1	2	3	4
1	.632	.532	.452	.336
2	-.640	.423	.588	-.256
3	-.093	-.669	.578	.457
4	-.426	.300	-.340	.783

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Consequently, this components extraction explains 40.54%, 8.58%, 7.27% and 5.82% of the variance respectively (Table 11). This result was supported by implementation of a new Parallel Analysis with Monte Carlo simulation (Patil et al., 2007), which allowed only four components with eigenvalues exceeding the corresponding criterion values for a randomly

generated data matrix of the same size (23 variables × 325 respondents), as it is shown on Table 10.

Table 9. Correlations of cognitive image components from final extraction (Promax Correlation Matrix)

Component	1	2	3	4
1	1.000	.569	.456	.476
2	.569	1.000	.440	.260
3	.456	.440	1.000	.338
4	.476	.260	.338	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Table 10. Comparison of eigenvalues from PCA and criterion values from parallel analysis

Component Number	Criterion value from parallel analysis	Actual eigenvalue from PCA	Decision PCA > PA
1	1.592845	9.325	Accept
2	1.478940	1.743	Accept
3	1.418301	1.660	Accept
4	**1.350061**	**1.359**	**Accept**
5	1.301890	1.029	Reject
6	1.250563	.926	Reject

a) Sample: 325, b) Number of variables: 23, c) Percentile of Eigenvalues: 95

Table 11. Results of Exploratory Factor Analysis (PCA) for cognitive destination image

Component / Items	Factor Loadings	Eigenvalue	Variance Explained	Cronbach Alpha
Factor 1: Must-be Conditions		**9.325**	**40.54%**	**.852**
Availability of hotels/lodgings/camping	.633			
Relaxing/avoidance of daily routine	.796			
Appealing local food (cuisine)	.739			
Safe place to travel	.687			
Easily accessible from permanent residence	.688			
Family-oriented destination	.509			
Good value for money	.647			
Satisfactory customer care on behalf of various professionals	.562			
Factor 2:				

Attractive conditions		**1.743**	**8.58%**	**.877**
Good quality of infrastructure	.571			
Standard hygiene & cleanliness	.547			
Political stability	.796			
Good reputation of destination	.558			
Unpolluted/unspoiled natural environment	.808			
Implementation of policies towards sustainability & environmental protection	.856			
Factor 3: Appealing Activities		**1.660**	**7.27%**	**.793**
Various shopping opportunities	.559			
Interesting cultural attractions	.774			
Interesting historical monuments & relevant events	.806			
Good facilities for sports training	.504			
Nice opportunities for biking/fishing /hunting/climbing	.638			
Nice opportunities for wine-tourism	.576			
Factor 4: Natural environment		**1.359**	**5.82%**	**.754**
Good climate	.667			
Great beaches	.810			
Beautiful landscape	.767			
Total Variance Explained			**62.21%**	

The four component solution explained a total of 62.21% of the variance, which agrees with specified condition of 60% or higher (Hair et al., 2010). The rotated solution revealed the presence of a simple structure, with all four components showing a number of strong loadings and the corresponding variables loading substantially on only one component (see Table 11), thus satisfying validity criterion for factor loadings (>.50) (Table 5). Calculation of Cronbach's alpha for each component resulted in very high values, supporting reliability for the proposed grouping of variables under these four components.

DISCUSSION AND CONCLUSIONS

The present study explored tourists' image associations to examine the dimensionality of cognitive tourism destination image. The study has both theoretical and practical implications. From a theoretical standpoint, the

study explored the structure of factors reflecting tourism destination image. It added to the existing knowledge by providing empirical evidence for the elements contributing to the analysis of cognitive destination image. It was found that a destination image is developed on four dimensions. The uniqueness is that it demonstrates an alternative structure of elements contributing to destination image development. Aligned with results from previous studies, the study empirically confirmed that cognitive destination image is multi-dimensional. Our analysis suggests four image dimensions: (1) must-be conditions (2) attractive conditions, (3) appealing activities, and (4) natural environment (Table 12).

The "must-be conditions" are those that in the eyes of tourists are basic when they consider a destination. In other words, these are conditions that a specific destination should fulfill as an entry requirement in the market. They include attributes such as "availability of hotels/lodgings/camping", "safe place to travel", and "satisfactory customer care on behalf of various professionals".

Table 12: Components (factors) and corresponding observed variables of cognitive destination image (final arrangement)

	Components	Observed Variables
1	Must-be conditions	CI6, CI10, CI15, CI16, CI17, CI18, CI21, CI27
2	Attractive conditions	CI5, CI19, CI22, CI23, CI24, CI25
3	Appealing activities	CI8, CI11, CI12, CI13, CI14, CI28
4	Natural environment	CI1, CI2, CI3

The "attractive conditions" are those that are expected to provide satisfaction to tourists and could include among others, "standard hygiene and cleanliness", and "implementation of policies towards sustainability and environmental protection". The "appealing activities" are those that could form a basis for differentiation for a specific destination, and could "interesting historical monuments and relevant events" and "good facilities for sports training" among others.

In comparison to other research studies with similar (but not identical) sets of cognitive items, this study differs in the proposed conceptualization of destination image. Chen and Kerstetter (1999) concluded in four image dimensions from a total of 39 cognitive items that were named tourism infrastructure, atmosphere, natural amenity, and farm life, with regard to a rural tourism site. Bosque and Martin (2008) identified a set of four cognitive factors including 22 items, namely infrastructure and socioeconomic environment, atmosphere, natural environment and cultural environment. A research study of Jeong and Holland (2012) revealed four cognitive underlying dimensions, i.e. activities, facilities, natural attractions

and cultural attractions, which came from 38 items that were initially examined. Previous studies in addition to those published by Beerli and Martin (2004) and Chen and Hsu (2000) have created sets of factors that have a similar grouping of variables and referring to the nature of tourism destination. In our case, the grouping of variables does not follow the same pattern, but corresponds to tourists' involvement with the tourism destination. The natural environment dimension could be considered as exception to that; however, "natural environment" is a distinct dimension in all studies published on cognitive destination image. Therefore, the procedure described above revealed four factors that represent tourists' prioritization of their needs towards destination.

The study has certain limitations that relate mainly to the fact that the cognitive approach of tourism image formation was only investigated, which limits the significance of "destination image" as predictor of tourist behavior. Furthermore, in case of examining decision making for a tourism destination it would require to apply a confirmatory factor analysis to evaluate the proposed cognitive measurement scale.

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